ESO 1628

DISCUSSION GUIDE FOR 1990 LIVESTOCK OUTLOOK

prepared by

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SLIDE 1: U.S. INVENTORY OF ALL CATTLE AND CALVES, JANUARY 1

A. Long-term decline in cattle numbers has been dramatic.

1. 1975: 132 million head.

2. 1989: 99.5 million head.

B. January 1, 1990 survey is expected to show an inventory of 100.5 million head, or up 1%.

C. January 1, 1991 survey is expected to show an inventory of or 102.5 million head, or up 2%.

D. Modest growth rate is due to two factors.

1. Cow-calf producers memory of large losses experienced in the early and mid-1980s.

2. The Tax Reform Act of 1986 reduced the incentives to expand through the elimination of the investment tax credit and the capital gains exclusion.

SLIDE 2: U.S. COW-CALF PRODUCTION RETURNS

A. The incentive for an expansion of the size of the cattle herd is indicated by the profits to cow-calf production.

1. Four consecutive years of profits over 1986-1989.

2. Longest period of profits since the late 1960s and early 1970s.

3. Average profits:

a. 1981-1985: $-13/cwt.

b. 1986-1989: $+44/cwt.

B. Cow-calf producers are expected to earn substantial profits in 1990.

1. Supported by strong feeder cattle prices and good forage and pasture conditions.

SLIDE 3: U.S. COW SLAUGHTER IN 1989

A. Evidence that beef producers are beginning to rebuild the cattle herd can be seen in cow slaughter numbers.

B. Over January-May 1989 cow slaughter was up an average of 4% compared to year earlier levels.

C. Over June-September 1989 cow slaughter was down an average of 7% compared to year earlier levels.

SLIDE 4: BEEF PRODUCTION FORECASTS

A. Continued decline in beef production is forecast for 1990.

B. One uncertainty is whether cattle feeders will continue to feed cattle to heavy weights.

C. Slaughter weights of cattle have been about 1.5% above year ago levels since the summer.

SLIDE 5: FED CATTLE PRICES

A. Pattern of fed cattle prices in 1989 similar to that in 1988.

B. Despite drop in beef production prices are expected to only increase marginally in 1990.

1. Increase in fed cattle weights.

2. Large supplies of poultry.

C. Price forecasts:

1. 1989IV: $73-75/cwt.

2. 1990I: $74-78/cwt.

3. 1990II: $74-78/cwt.

4. 1990III: $70-74/cwt.

SLIDE 6: U.S. FEEDER CATTLE SUPPLIES, JULY 1

A. After declining sharply for most of the 1980s feeder cattle supplies were up on July 1, 1989.

B. Increase was not large, only up 0.8%.

C. Only 1988 supply was smaller in the 1980s.

SLIDE 7: FEEDER CATTLE PRICES

A. Feeder cattle prices in the first five months of 1989 were about the same level as in 1988.

B. Over June-September prices were $4 to 8/cwt. higher than in 1988.

D. Prices have fallen modestly since mid-summer as fed cattle prices dropped.

E. Feeder cattle prices are expected to increase in response to recent rise in fed cattle prices.

F. Fundamentals are strong for feeder cattle prices in 1990.

1. High fed cattle prices.

2. Moderate feed costs.

G. Prices in the first half of 1990 are expected to range in the upper eighties to the low nineties.

SLIDE 8: U.S. INVENTORY OF ALL HOGS AND PIGS, 10 STATES, DEC 1

A. There has been no discernable long-term trend in hog numbers over the last thirty years.

B. Some analysts have suggested there is a ten-year cycle in hog numbers.

1. Lows in 1965, 1975, and 1986.

2. Highs in 1970, 1979.

C. Several reasons to view this conclusion cautiously.

1. Two repetitions of a cycle has little statistical reliablity.

2. Structure of hog industry has changed dramatically.

3. Efficiency of hog production has improved sharply.

SLIDE 9: NUMBER OF U.S. HOG FARMS

A. Number of hog farms has dropped sharply in the 1980s.

1. 1980: 675,000 farms.

2. 1988: 334,000 farms.

B. Continued declines are expected given cost advantage of larger operations.

SLIDE 10: U.S. HOG FARMS WITH INVENTORIES OF 500 OR MORE HOGS AND PIGS

A. While the total number of hog farms has fallen, the number of large operations has grown.

B. Define large operations as those with 500+ inventories.

1. 1977: 3.4% of all hog farms
35.3% of all hog inventories.

2. 1988: 9.0% of all hog farms
59.6% of all hog inventories.

C. As share of production by large operations has increased, share of smaller operations has declined sharply.

SLIDE 11: EFFICIENCY OF THE HOG BREEDING HERD

A. Efficiency of the hog breeding herd has increased rapidly in the 1980s.

B. Cycling efficiency measures how fast the breeding herd is re-bred and farrowed.

1. Estimated by the ratio of sows farrowed over the December-May period to the December 1 breeding herd.
2. Expressed in index form with 1963 equal to 100.
3. No change in cycling efficiency between 1963 and 1980.
4. Increased by 19% between 1980 and 1988.

C. Pigs per litter efficiency is estimated by the pigs per litter over the December-May period.

1. Expressed in index form with 1963 equal to 100.
2. No change in pigs per litter efficiency between 1963 and 197.
3. Increased 8% between 1977 and 1988.

D. Efficiency of the hog breeding herd has increased by 28% since the late 1970s due to the increases in cycling and pigs per litter efficiency.

E. Increases in efficiency are probably related to the structural changes that have taken place in the hog industry.

F. Larger operations are more efficient due to better technology and more intensive management practices.

SLIDE 12: HOG-CORN RATIO

A. Indicator of hog production profits is the hog-corn ratio.

B. Traditional break-even ratio is 20:1.

C. Have been at or above 20:1 since.

SLIDE 13: HOG-CORN RATIO AND PRODUCTION RESPONSE FIVE QUARTERS LATER, 1980: I - 1988: II

A. Relationship between profits and hog production is shown on slide.

B. Each square represents the combination of the hog-corn ratio for a quarter and hog production five quarters later.

1. Five quarter lead reflects the average time required for producers to respond and the biological lags in production.

B. Indication of economically rational response.

1. If hog-corn ratio is less than 20:1, then production should be decreasing five quarters later, and squares on chart should be in the southeast quadrant.

2. If hog-corn ratio is greater than 20:1, then production should be increasing five quarters later, and squares on chart should be in the northwest quadrant.

C. Actual data conform to closely model of rational response.

D. Average response summarized by curved line.

E. Since hog-corn ratio is currently around 20:1, not expecting large production to increases in 1990.

SLIDE 14: PORK PRODUCTION FORECAST

A. Pork production forecasts based on inventory and pig-crops reported in September Hogs and Pigs Report.

B. One caution is that producers may increased production more than expected due to recent higher prices.

SLIDE 15: HOG PRICES

A. Hog prices

1. January-September 1988: $44.95/cwt.

2. January-September 1989: $42.90/cwt.

B. Spring price decline was larger than expected, with prices as low as $35/cwt.

C. Prices in October have moved contra-seasonally:

1. October 1988: $38.95/cwt.

2. October 1989: $46.50/cwt.

D. Price strength is apparently due to positive demand developments.

1. Decreasing marketing margins.

2. Strong domestic and export demand for loins.

3. Pork belly sales to Poland.

E. Price forecasts:

1. 1989IV: $44-46/cwt.

2. 1990I: $43-46/cwt.

3. 1990II $42-45/cwt.

4. 1990III $44-48/cwt.

5. 1990IV $40-48/cwt.

SLIDE 16: BROILER PRODUCTION AND PRICES

A. Broiler production has risen rapidly in the 1980s.

1. 1980III: 2,810 million pounds.

2. 1989III: 4,405 million pounds.

3. 56.8% increase.

B. Production has risen at an increasing rate in 1989 (on a year-over-year basis).

1. 1989I: +3.2%.

2. 1989II: +7.2%.

3. 1989III: +9.1%.

C. Despite the increases in production, broiler prices have trended up.

1. 1980I-III average: 45.8 cents/pound.

2. 1989I-III average: 62.1 cents/pound.

D. Strong evidence of the positive demand shifts that have supported broiler prices.

E. Note that broiler prices have fallen recently to the low 50s, which raises the question of whether the market has finally become saturated with chicken.

F. Broiler production is expected to increase 6 to 8% in 1990.

SLIDE 17: TURKEY PRODUCTION AND PRICES

A. The trend in turkey production, contrary to that of broilers, was flat in the first half of the 1980s.

B. Turkey production has increased sharply in the second half of the decade.

1. 1985III: 898 million pounds.

2. 1989III: 1,180 million pounds.

3. 31.4% increase.

C. Turkey prices have not held up as well as broiler prices in the face of the increase in production.

1. Prices dropped from a peak of 90 cents/pound in 1985 to a low about 45 cents in 1988.

D. Turkey production is expected to increase 8 to 12% in 1990.

SLIDE 18: U.S. MILK PRODUCTION

A. For the first five months of 1989 milk production increased approximately as expected.

B. Unexpectedly, milk production began falling in June 1989, and has been below year earlier levels since.

1. June: -1.2%.

2. July: -2.1%.

3. August: -1.4%.

4. September: -2.1%.

SLIDE 19: NUMBER OF MILK COWS

A. The major source of the production decline was not a drop in milk cow numbers.

B. The reduction in cow numbers has followed the expected trend.

SLIDE 20: MILK PRODUCTION PER COW

A. Milk production per cow is the major source of the drop in milk production.

B. While production per cow was weak over the first six months of 1989, it was not out of the range of most analysts expectations.

C. Since July, production per cow has been down significantly.

D. This has been only the second time since WWII that milk production per cow has dropped for a sustained period of time.

E. The drop in milk production per cow can be traced to two factors.

1. Forage availability problems as a result of last year's drought.

2. Poor forage quality in the Northeastern part of the U.S. due to extremely wet conditions.

SLIDE 21: MINNESOTA-WISCONSIN MILK PRICE AND CCC SUPPORT MILK

SUPPORT PRICE, 3.5% BF

A. Milk prices have been driven to record levels by the combination of reduced production and strong demand.

    1. MW price was a record $13.10/cwt. in September 1989.

B. Demand has been strong due to a very tight non-fat dry powder export market and a robust domestic cheese market.

C. New record prices are expected in October and November 1989.

SLIDE 22: MILK-FEED PRICE RATIO

A. An indicator of milk production profits is the milk-feed price ratio.

B. The traditional break-even ratio is 1.4.

C. The milk-feed price ratio has been above 1.4 since August 1989.

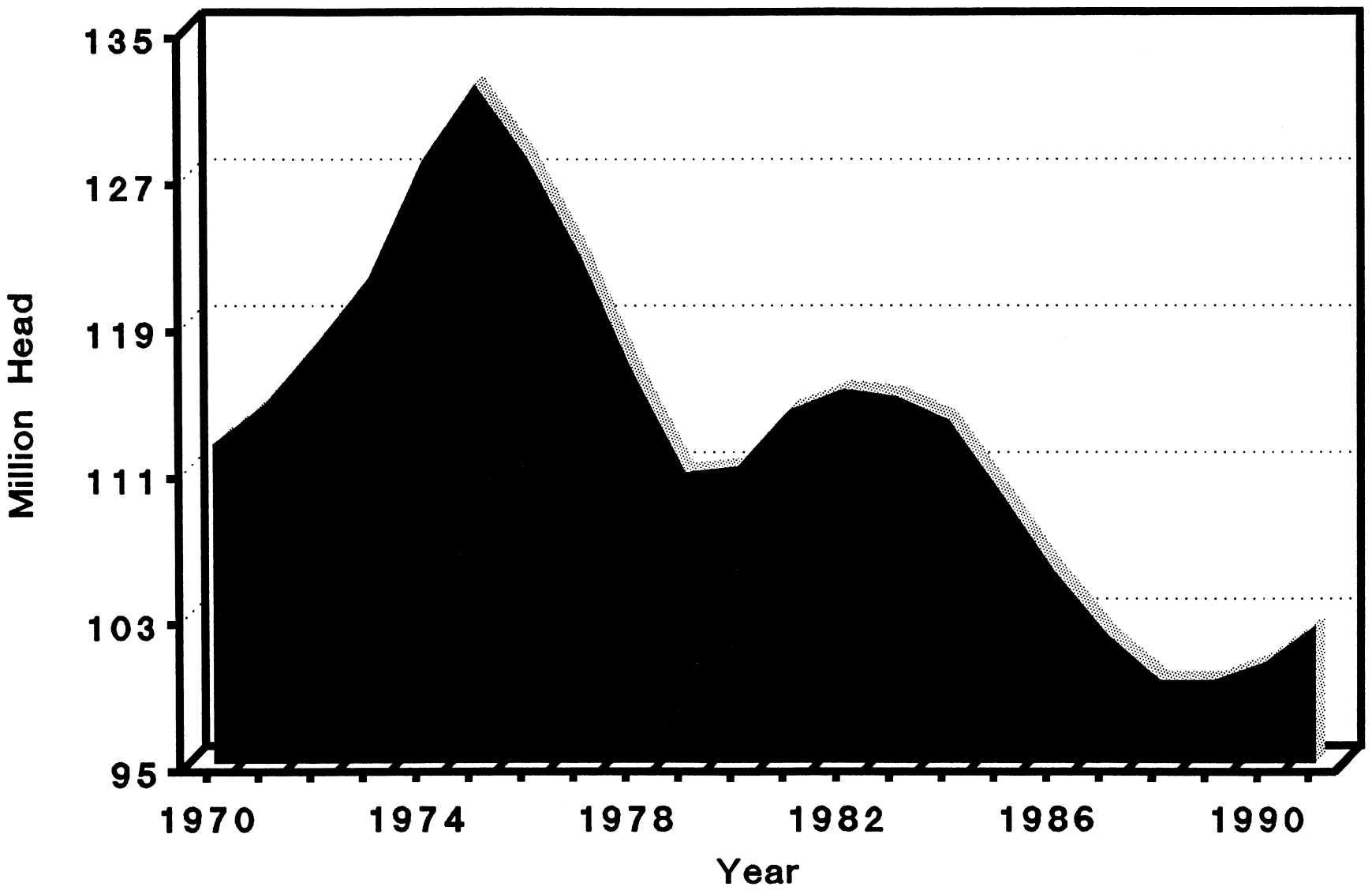
D. Recent increases in milk prices have likely pushed the ratio above 1.6.

E. This indicates that milk producers are receiving signals to expand production.

F. Milk production is expected to increase 2% in 1990, with the bulk of the increase occurring in the second half of the year.

G. Milk prices in 1990 are expected to average $11 to 12/cwt.

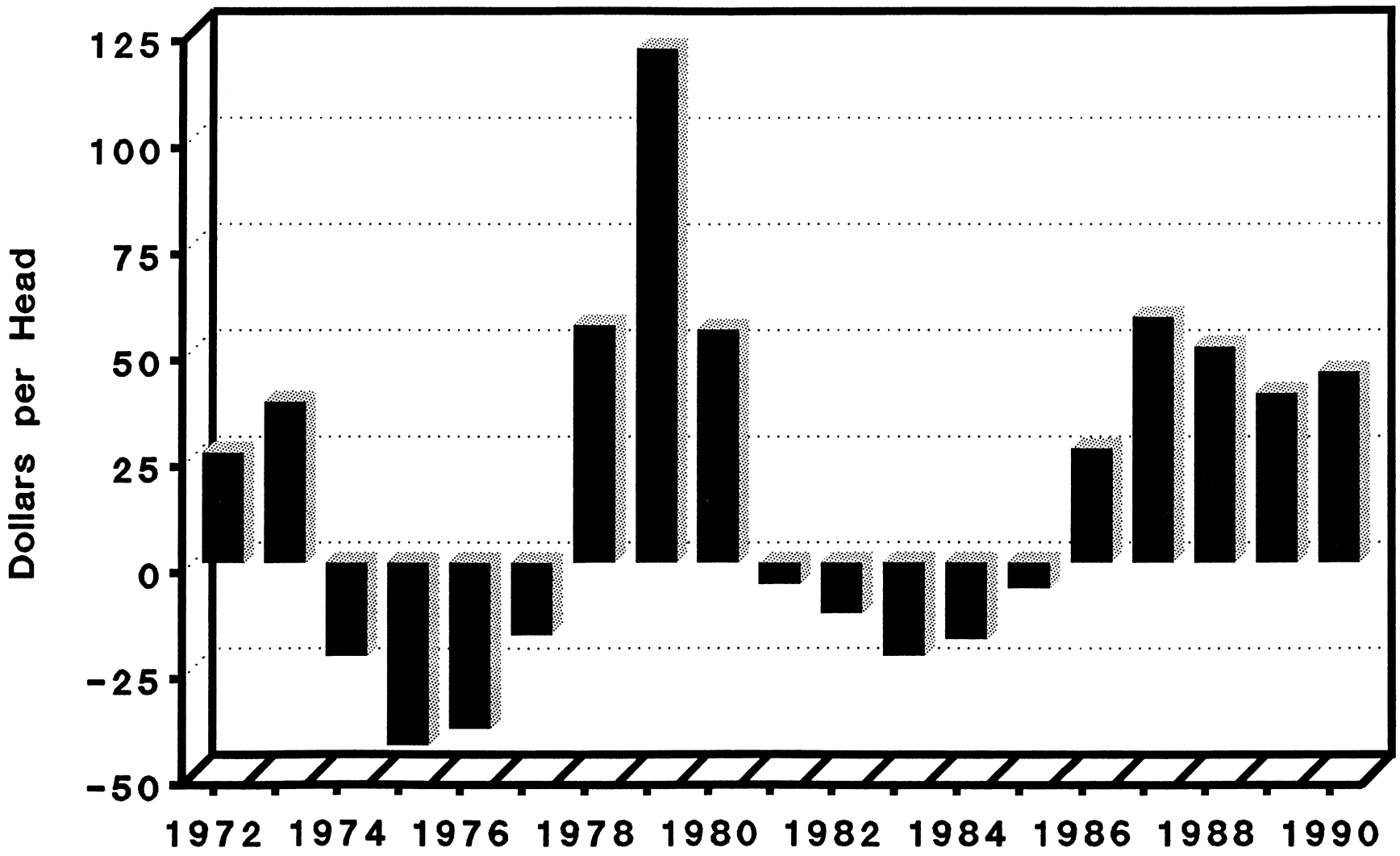
U.S. Inventory of All Cattle and Calves, January 1



*1990: Projected

1991: Forecast

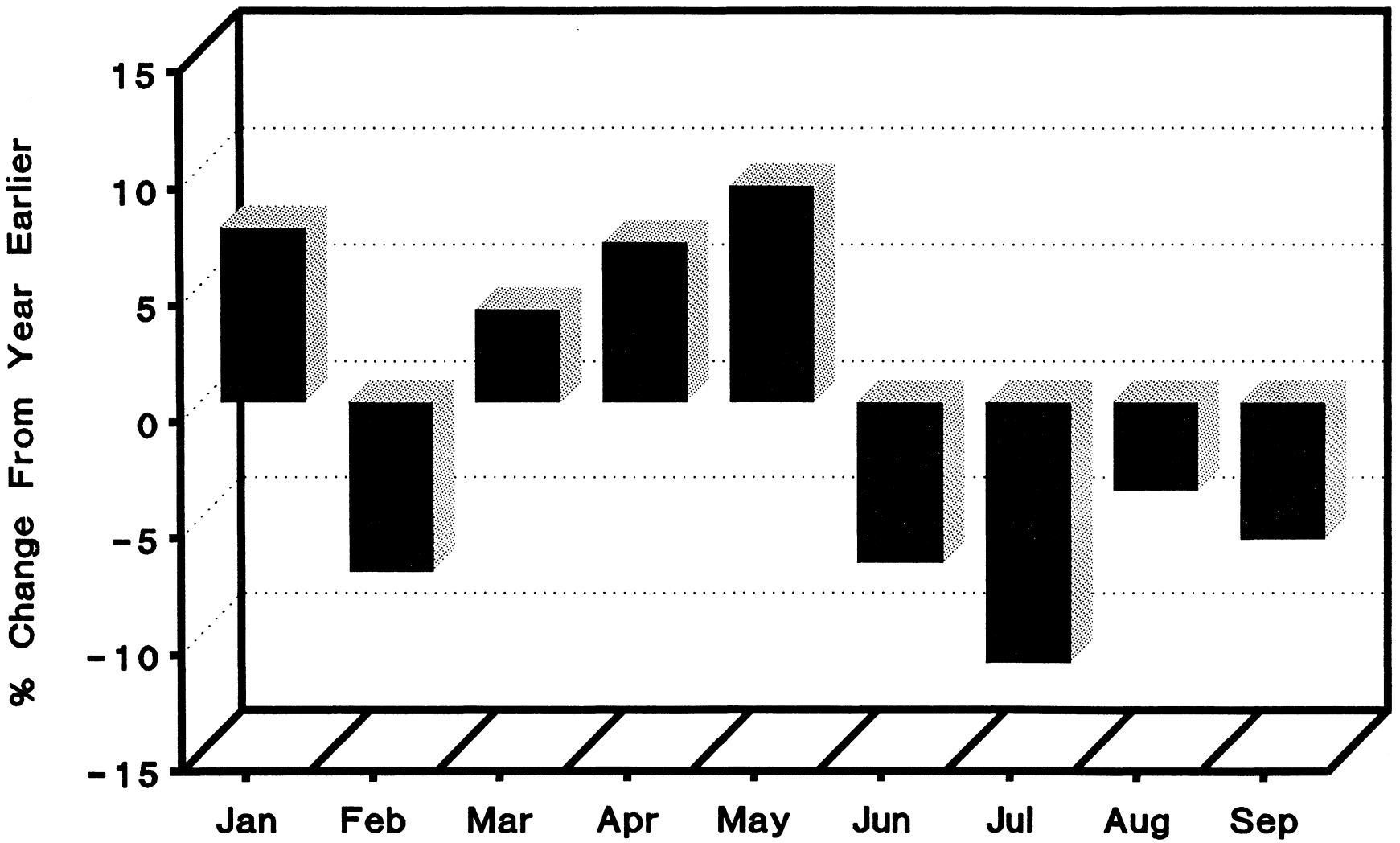
U.S. Cow - Calf Production Returns
(Receipts Minus Cash Expenses)



*1989: Projected

*1990: Forecast

U.S. Cow Slaughter in 1989

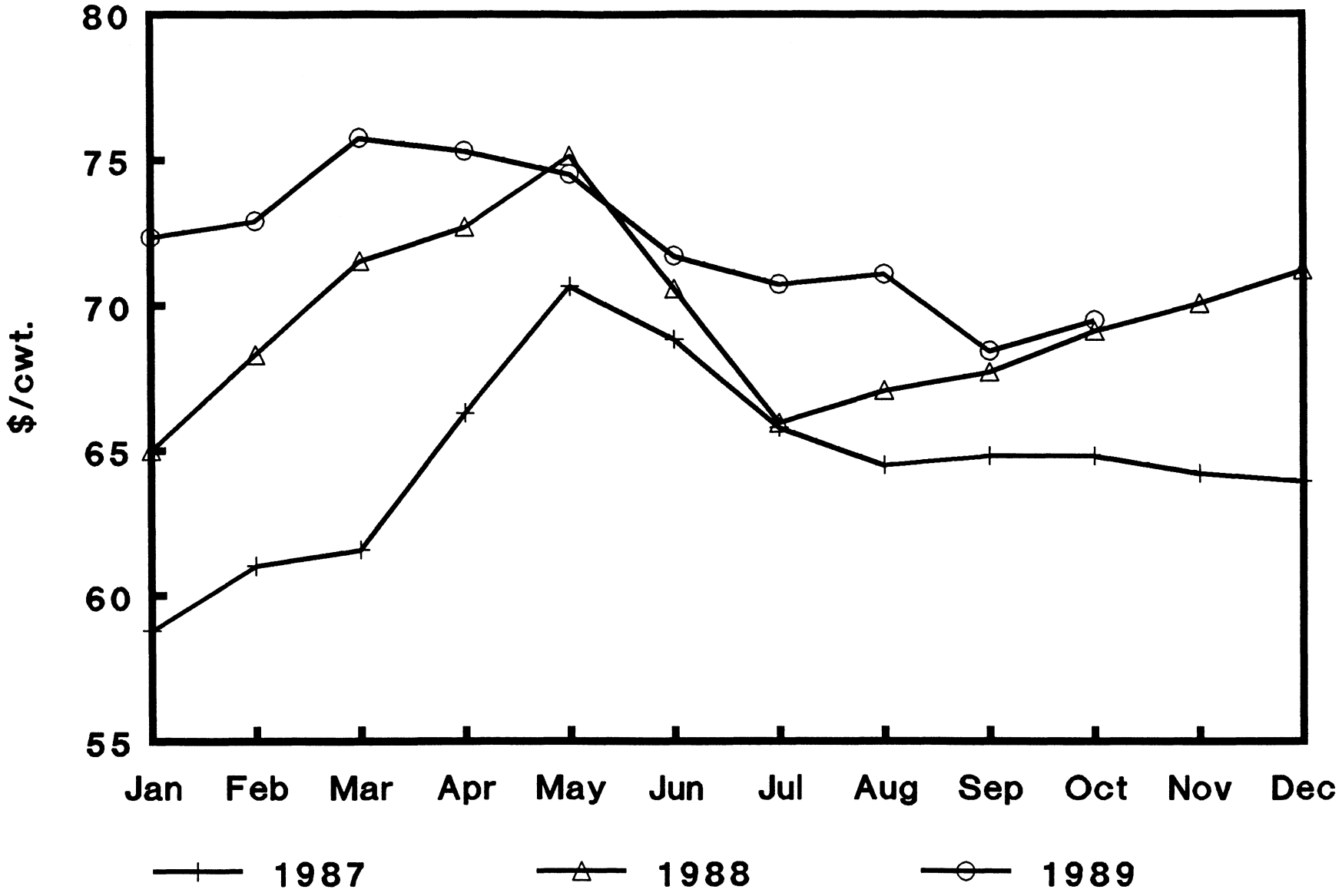


Beef Production Forecasts

1989		
	IV	-3%
1990		
	I	-3%
	II	-4%
	Year	-3%

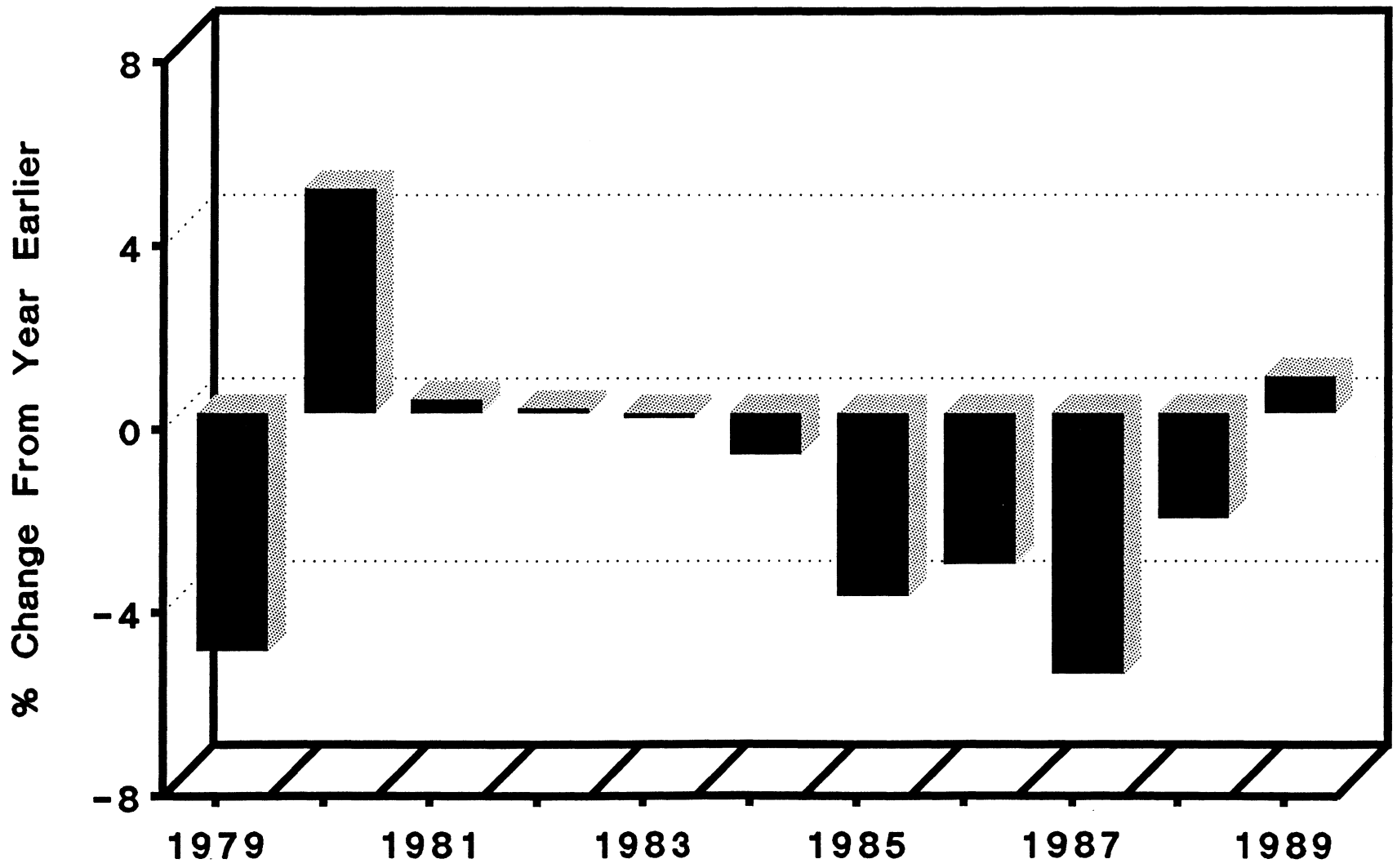
Fed Cattle Prices

Choice, 1000-1100 Lbs., Omaha



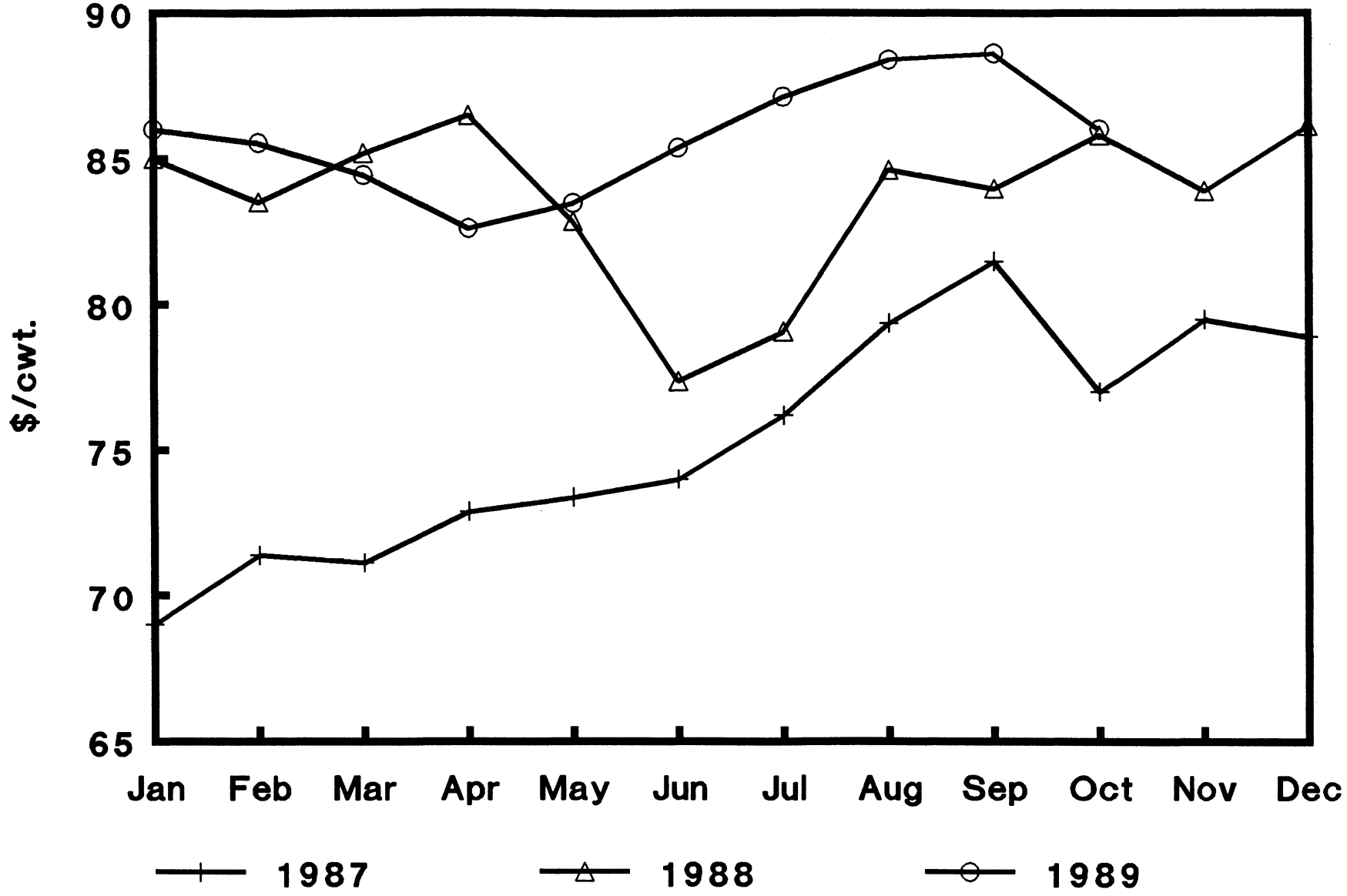
U.S. Feeder Cattle Supplies

July 1

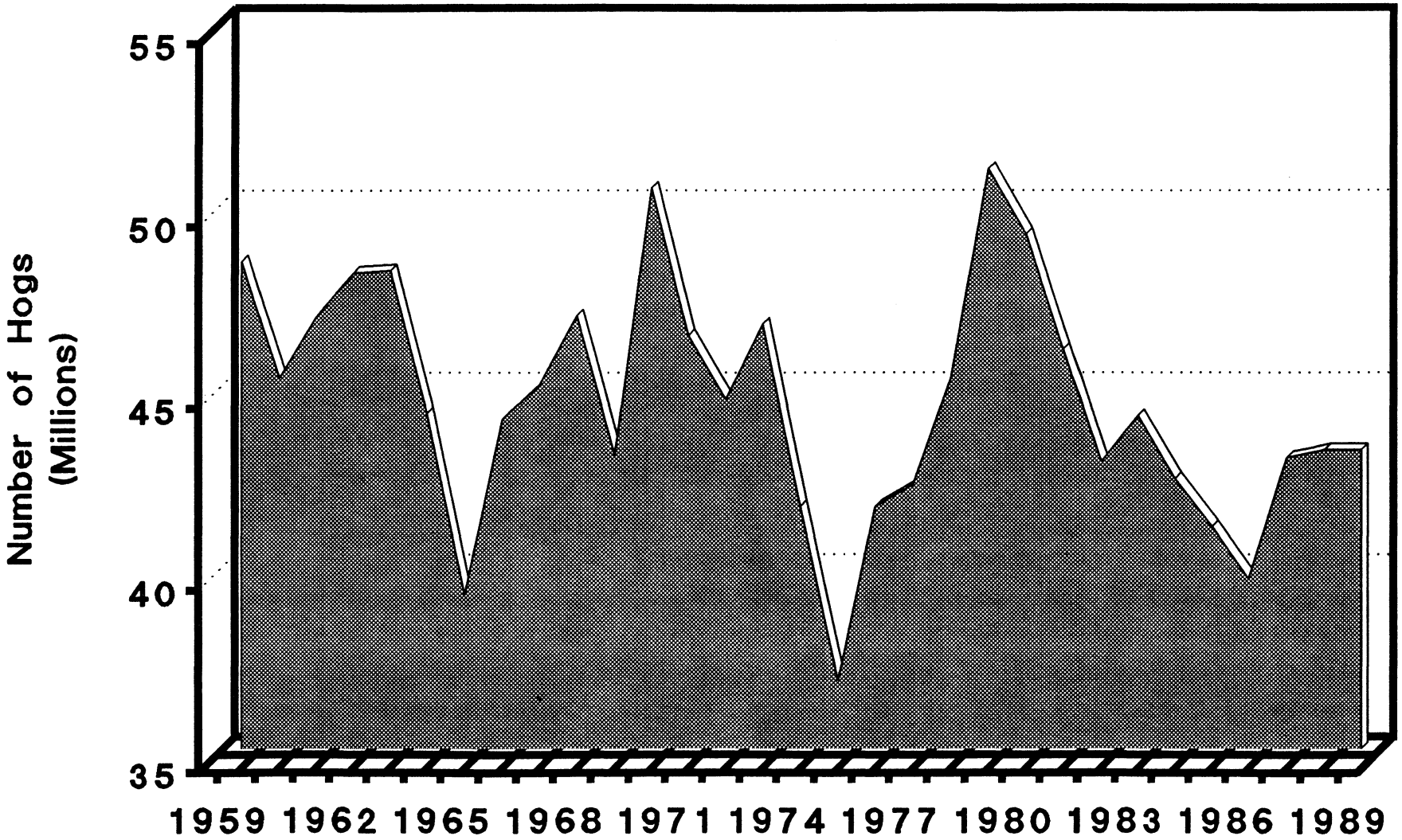


Feeder Cattle Prices

Medium Frame, 600-700 Lbs., Kansas City

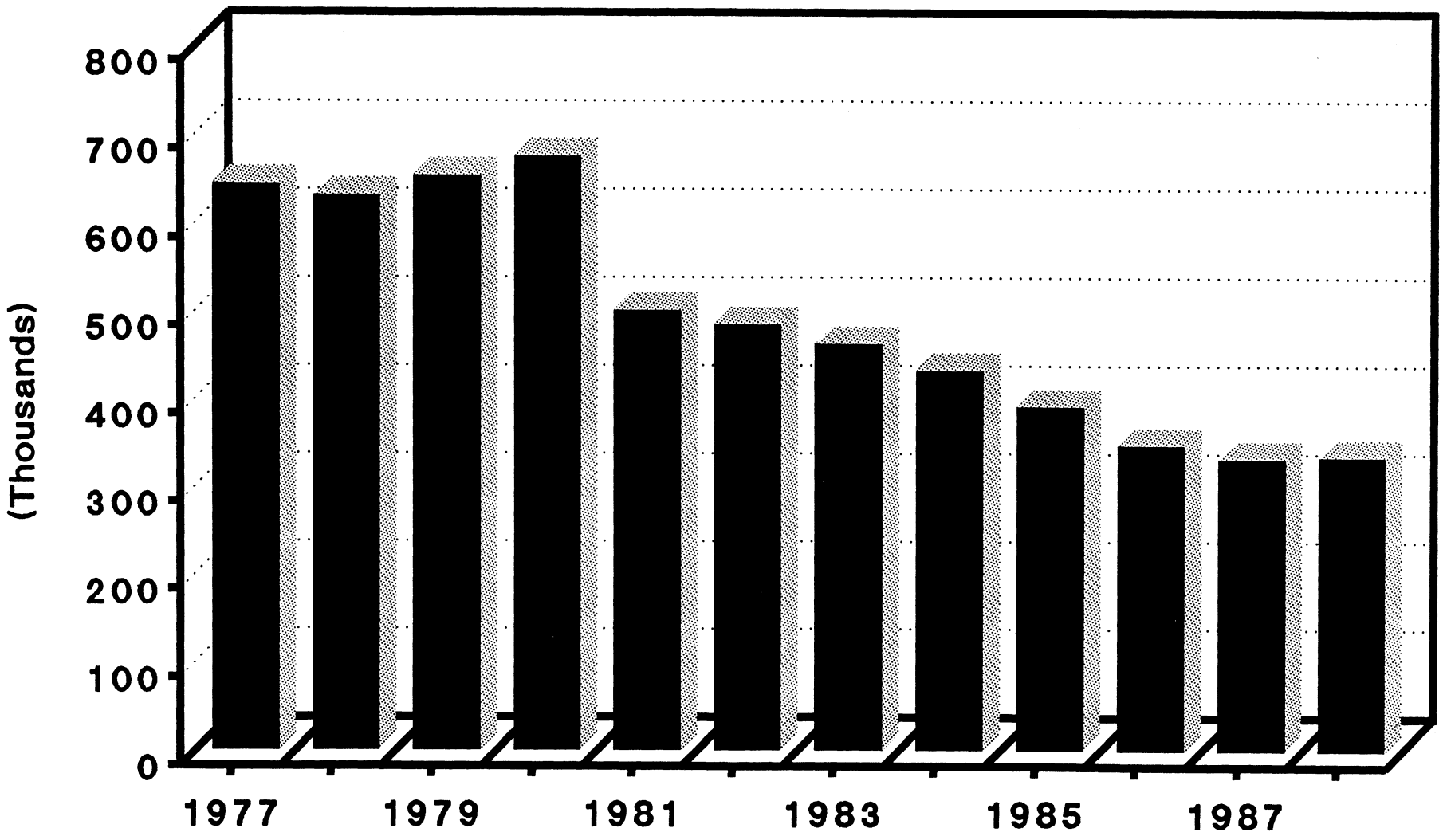


U.S. Inventory of All Hogs and Pigs
10 States, December 1

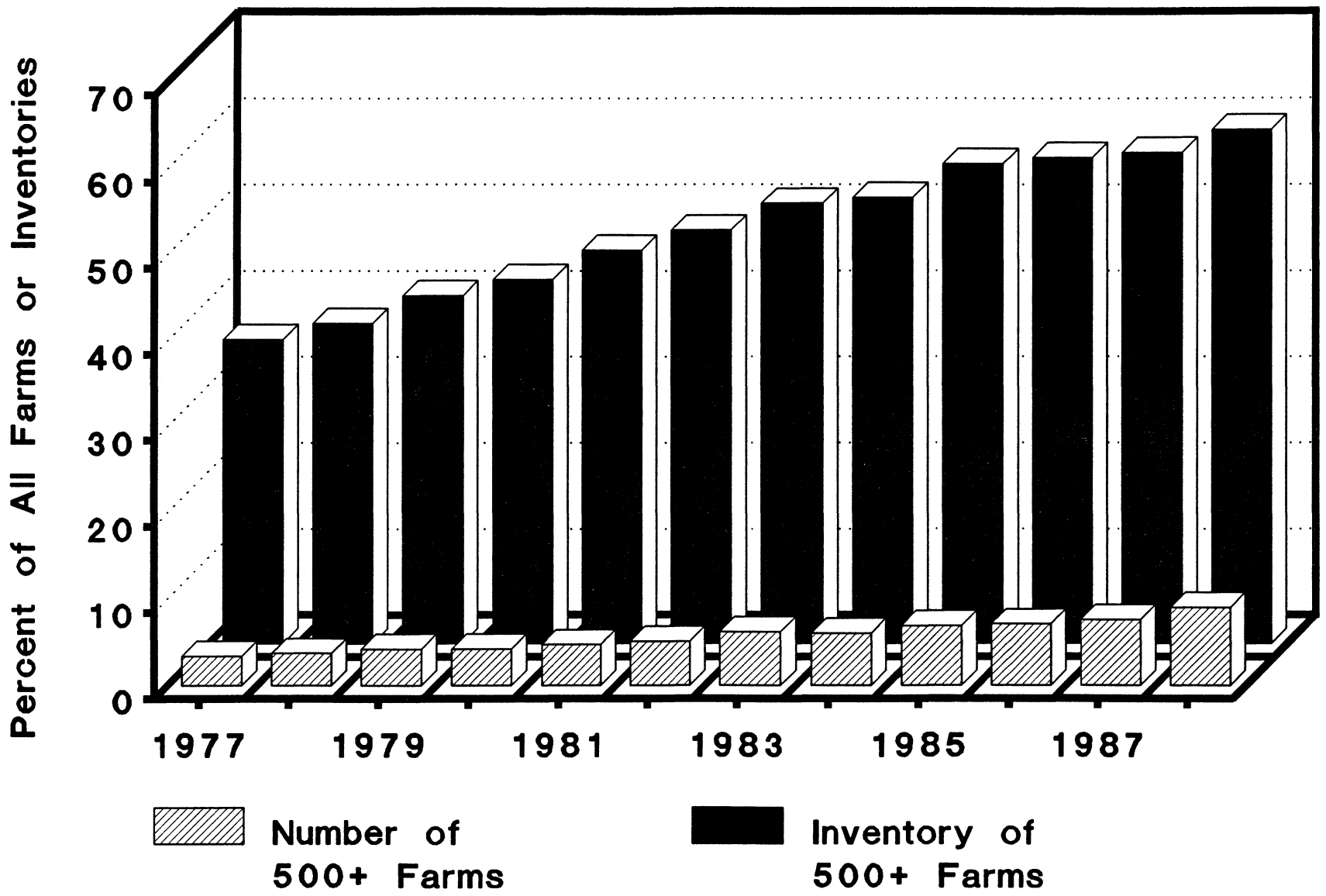


*1989: Projected

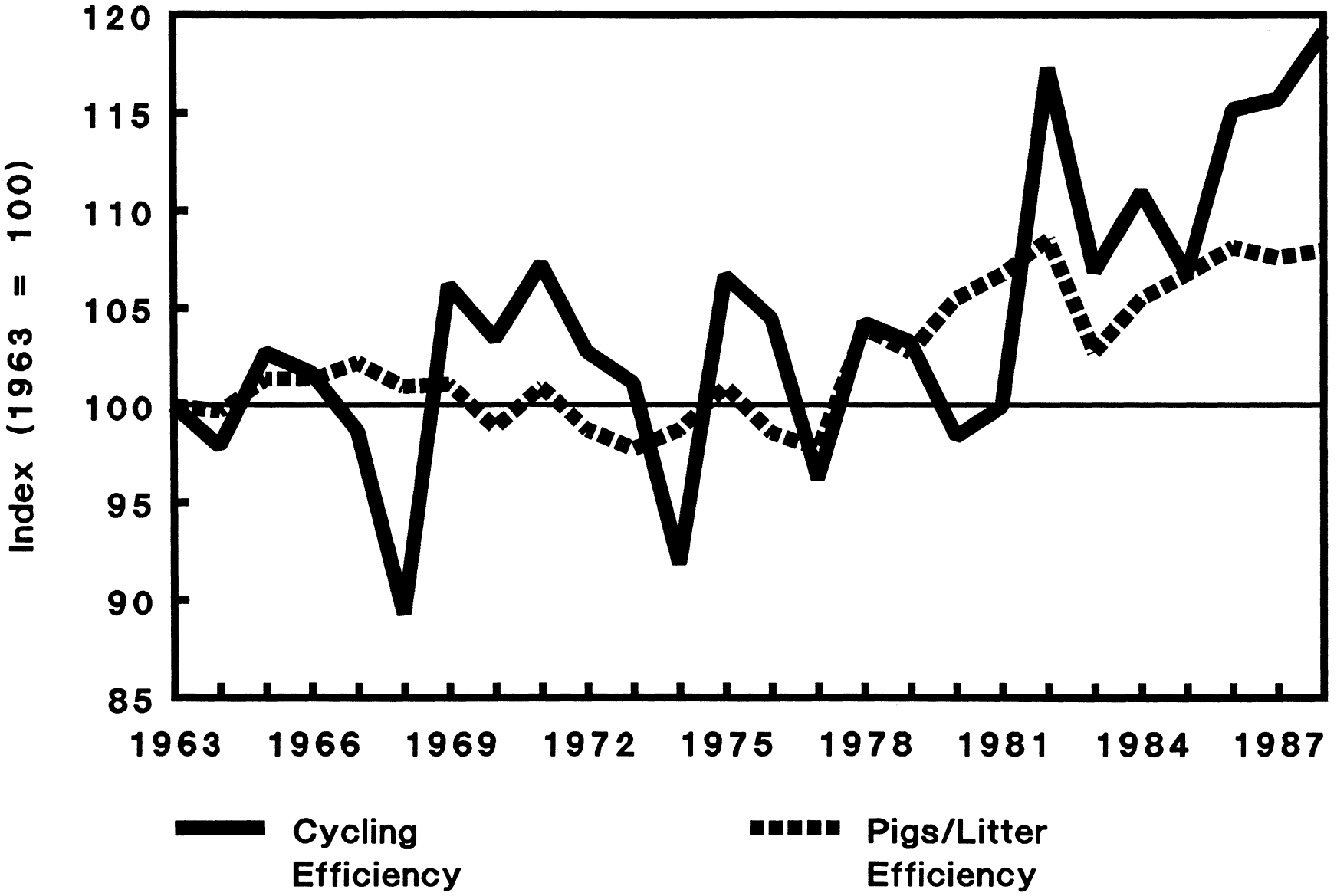
Number of U.S. Hog Farms



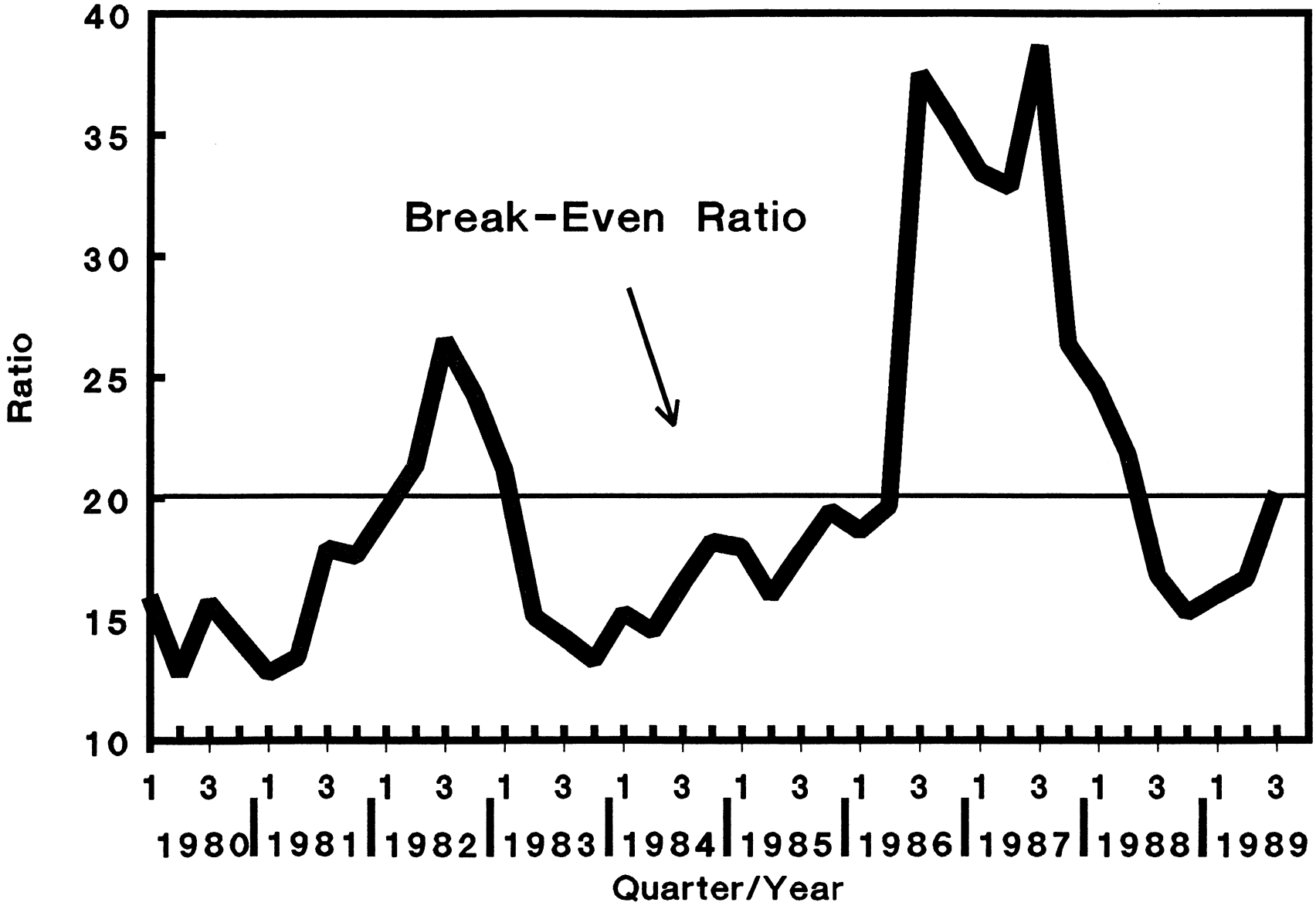
U.S. Hog Farms With Inventories of 500 or More Hogs and Pigs



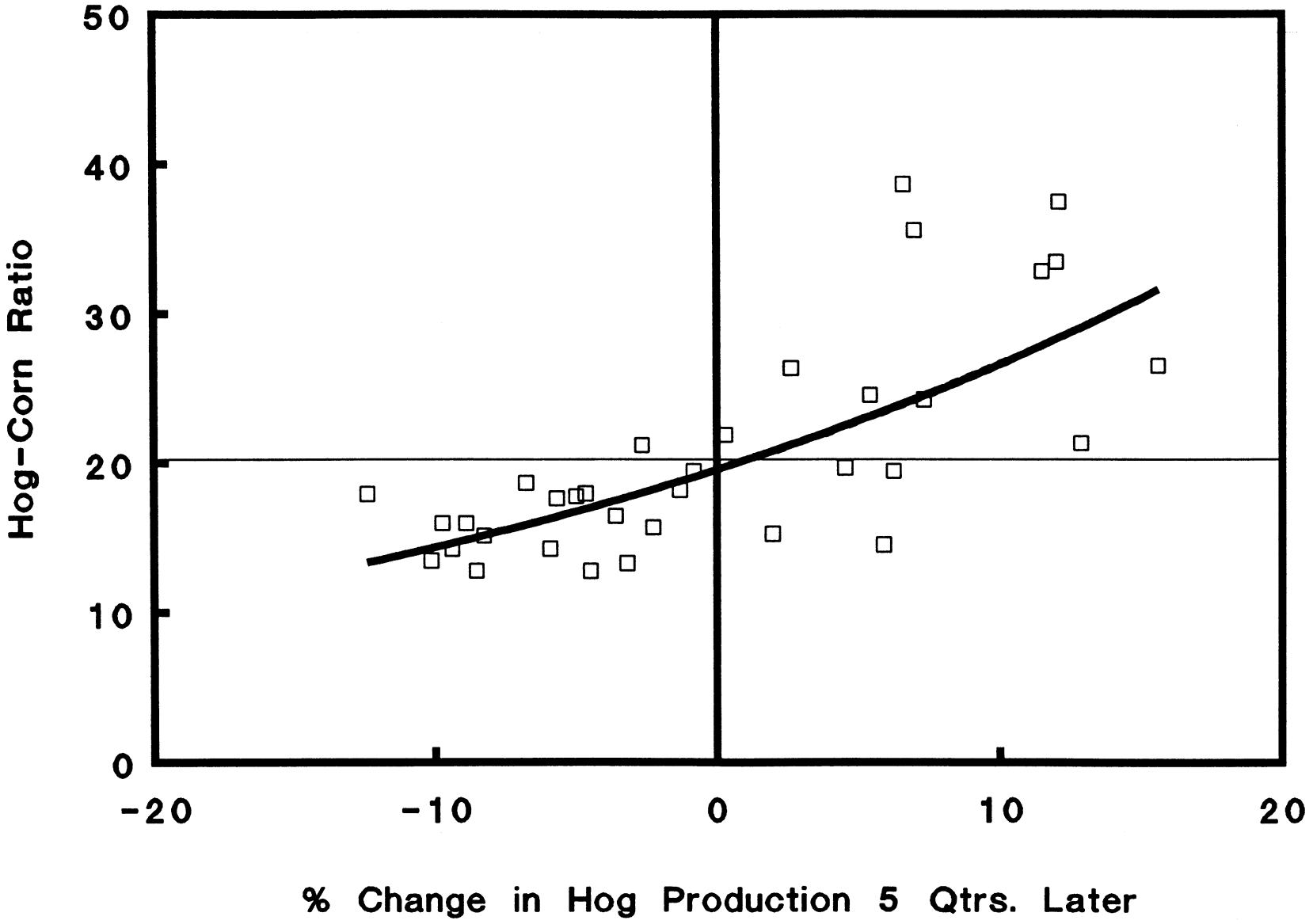
Efficiency of the Hog Breeding Herd



Hog-Corn Ratio



Hog-Corn Ratio and Production Response Five Quarters Later, 1980: I - 1988: II

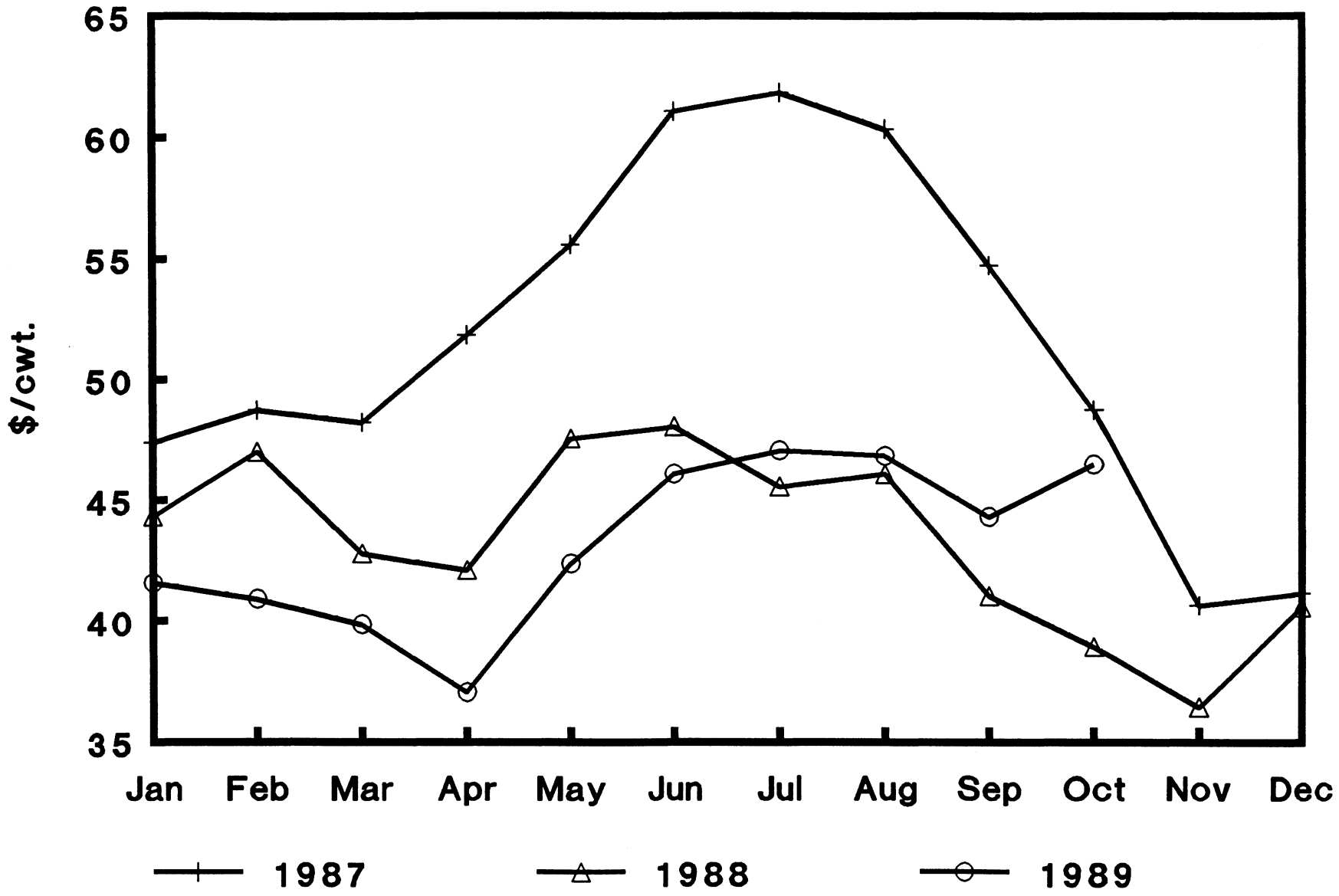


Pork Production Forecasts

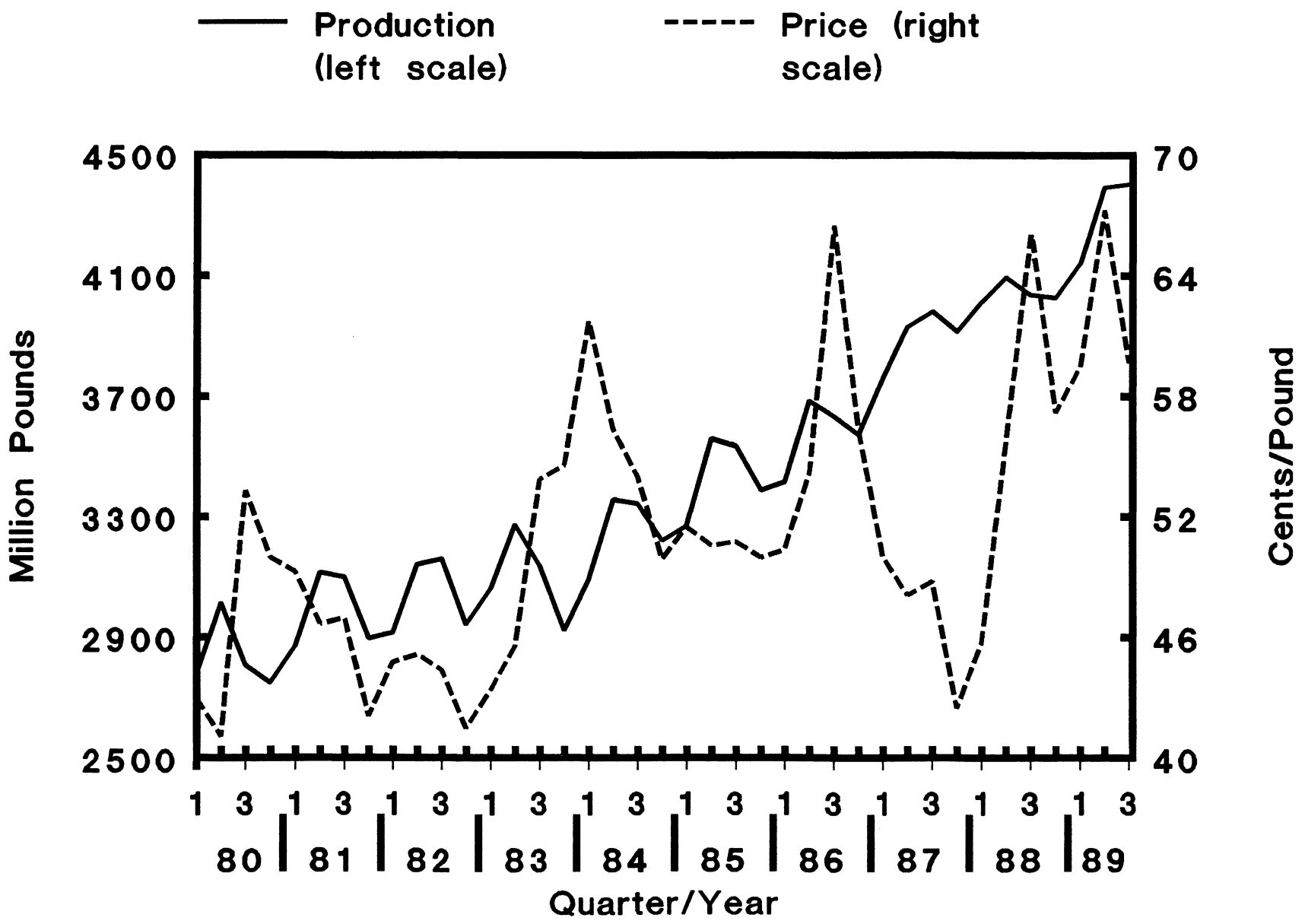
1989		
	IV	+1%
1990		
	I	+3%
	II	+1%
	Year	+2%

Hog Prices

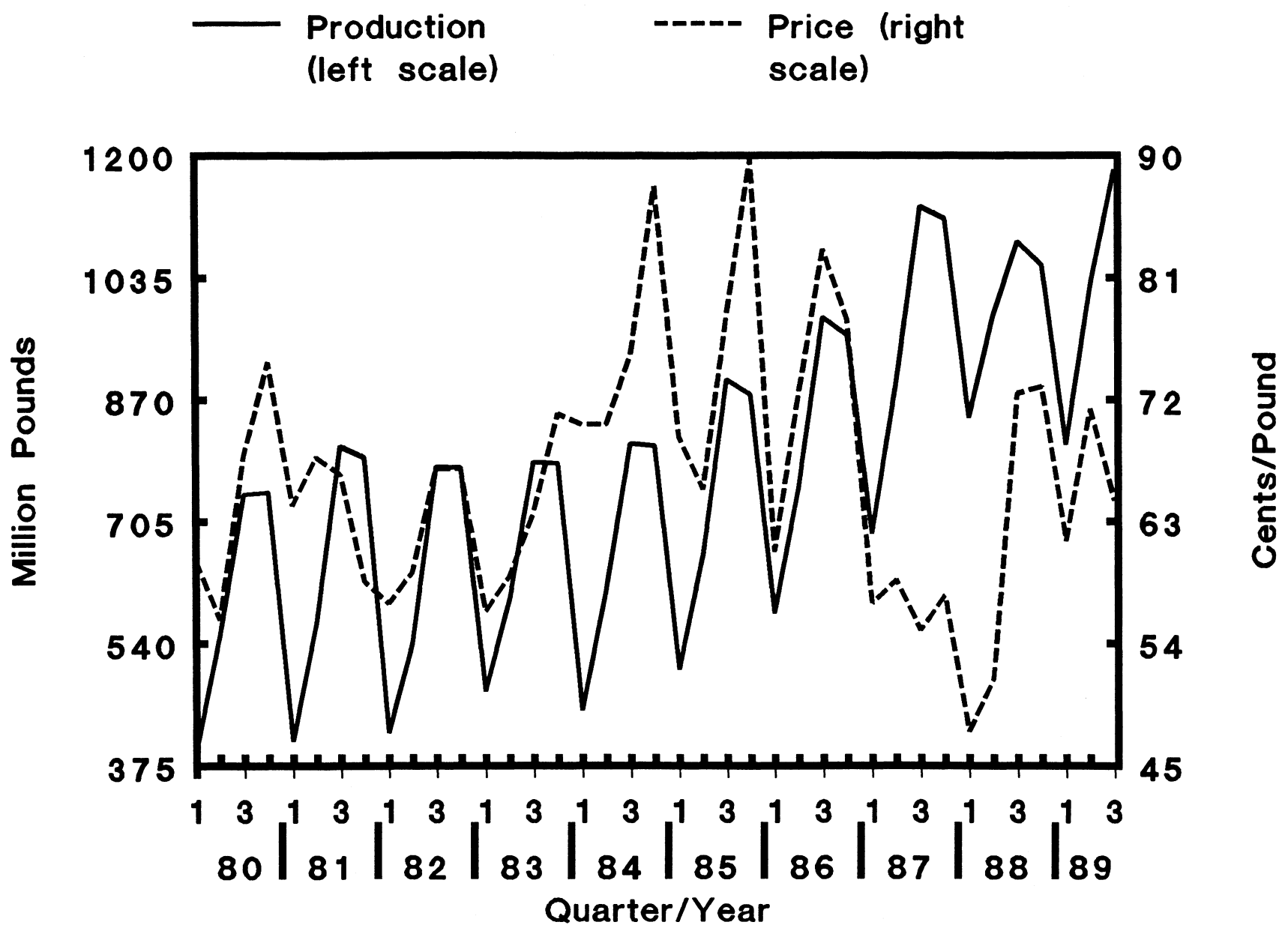
Barrows and Gilts, 7 Market Average



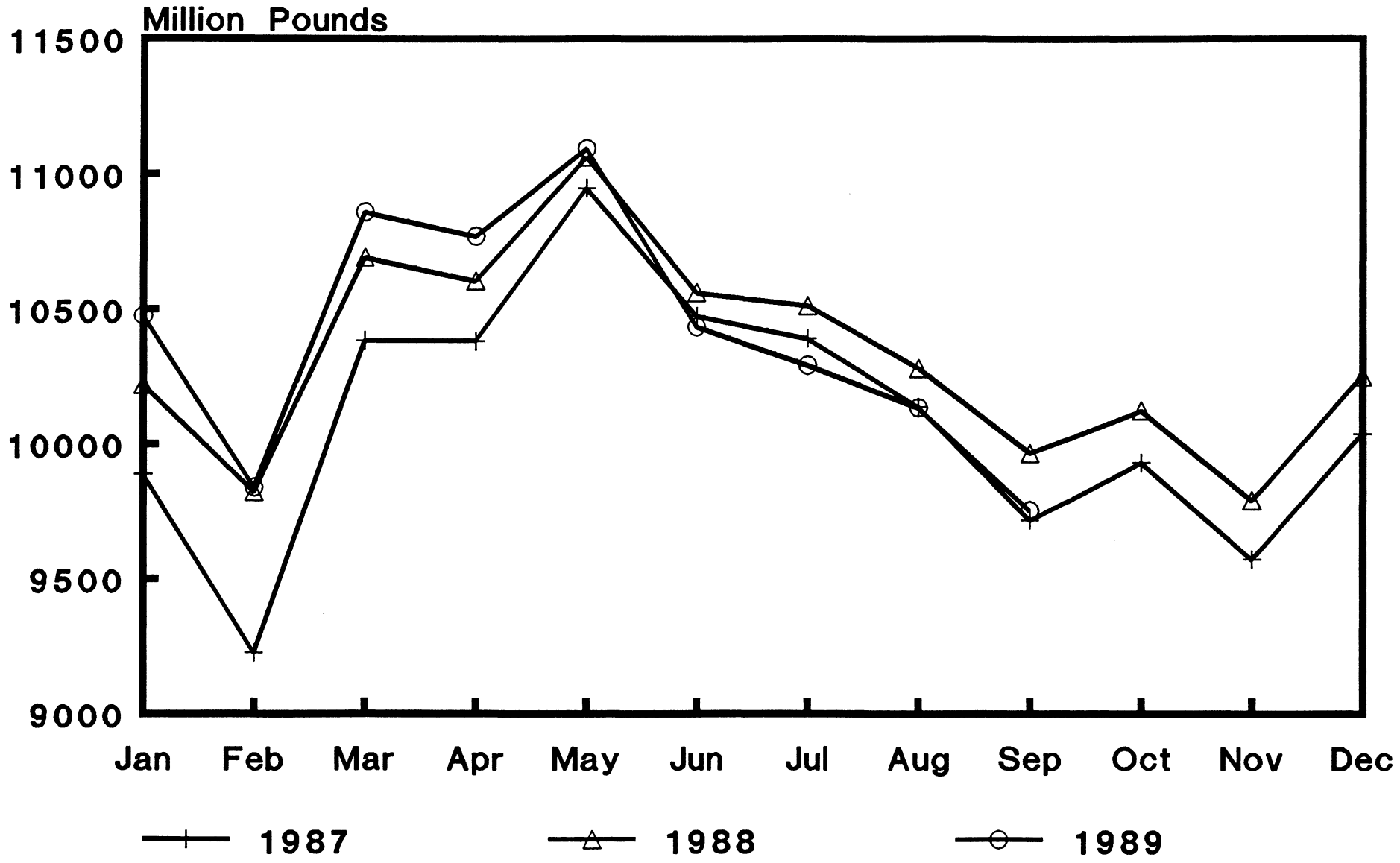
Broiler Production and Prices



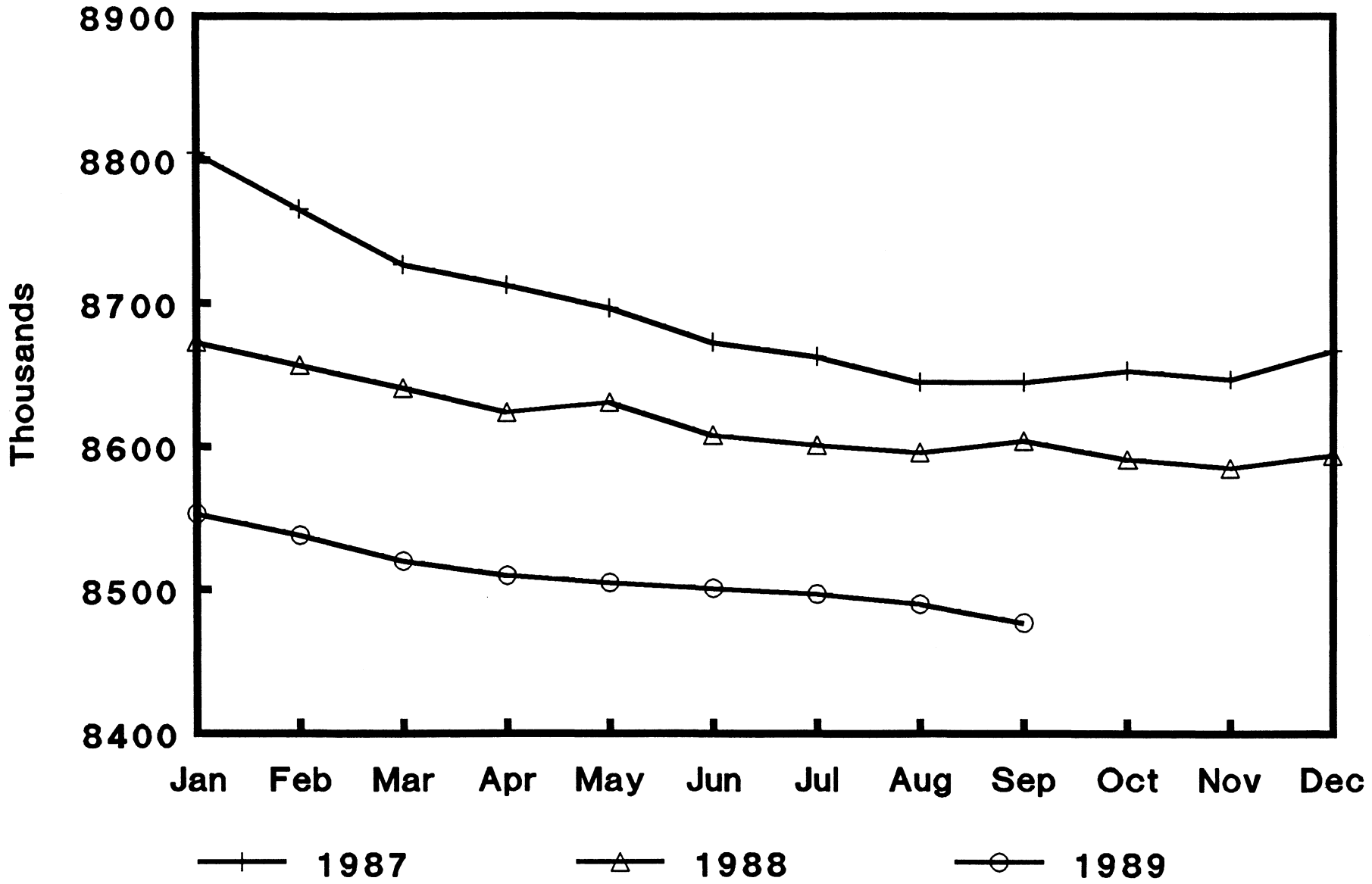
Turkey Production and Prices



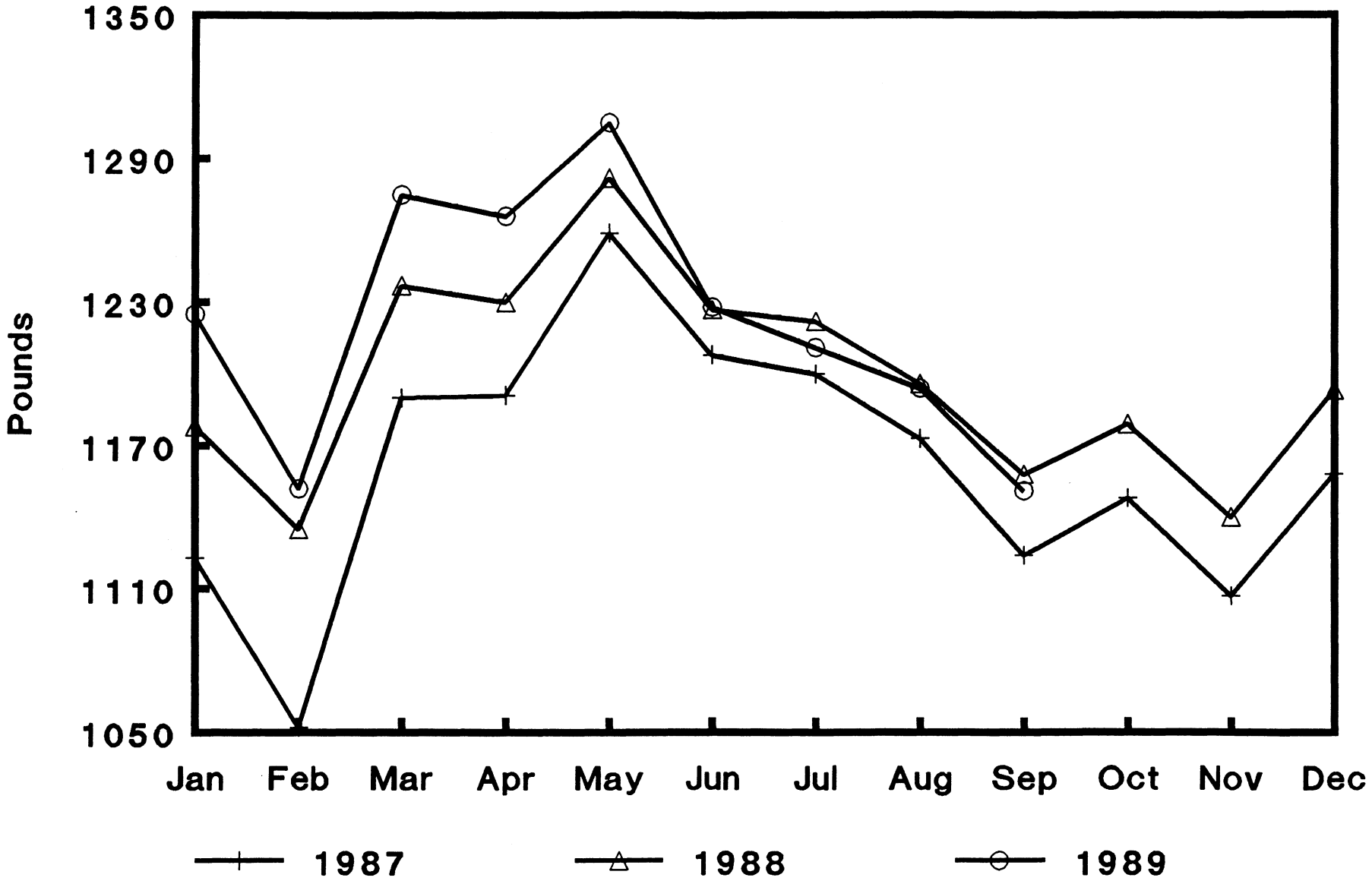
U.S. Milk Production
(21 States)



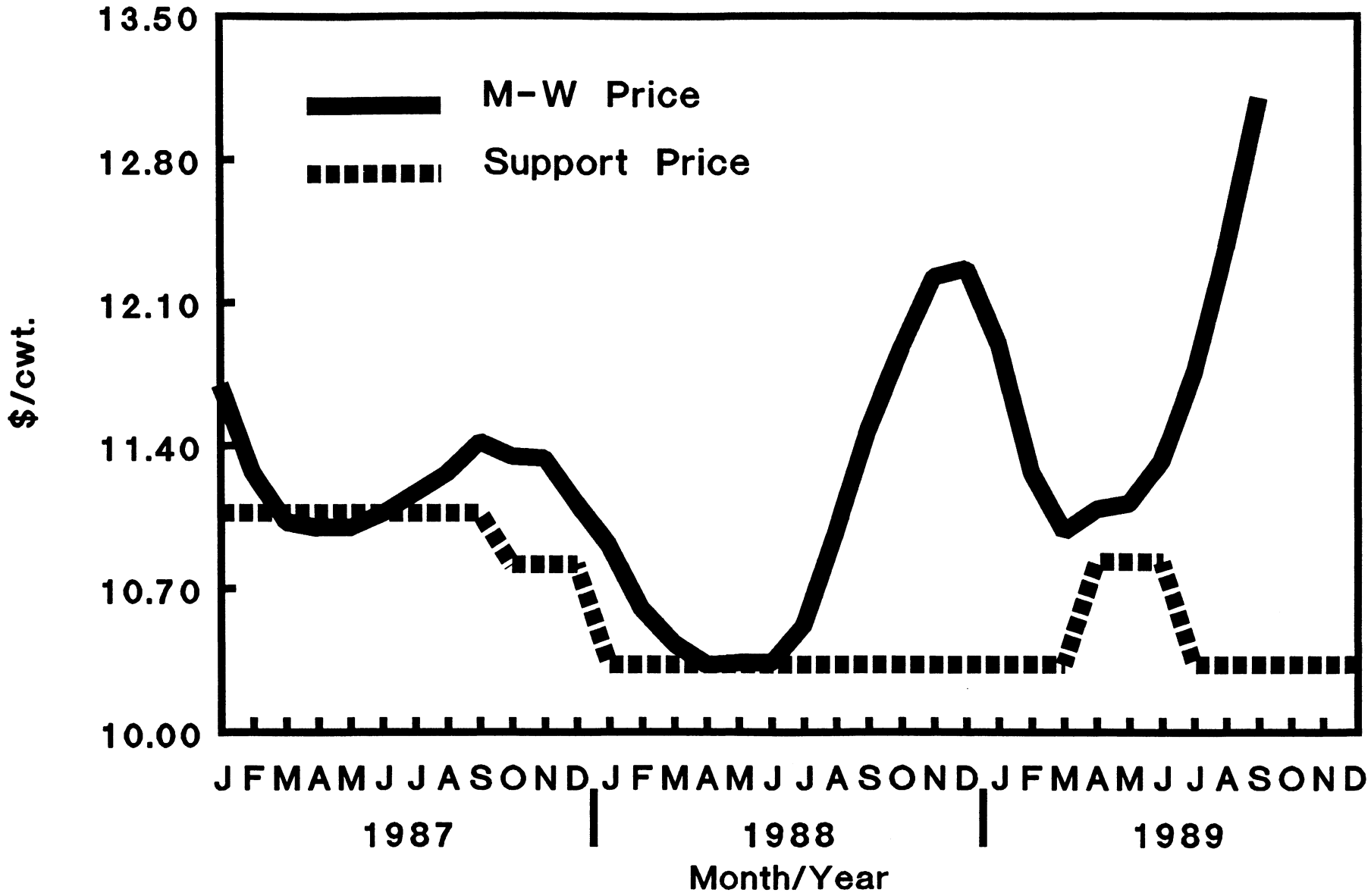
Number of Milk Cows
(21 States)



Milk Production Per Cow
(21 States)



Minnesota-Wisconsin Milk Price and CCC Milk Support Price, 3.5% BF



Milk-Feed Price Ratio